FCC TEST REPORT

FCC PART 15 SUBPART C 15.249

Test report

On Behalf of

Motionize Israel LTD

For

Soccer sensor

Model No.: AD-0300

FCC ID: 2AKJ2-AD-0300

Prepared for :	**Motionize Israel LTD** **SderotYehudit 35, Tel Aviv, Israel**
Prepared By :	**Shenzhen HUAK Testing Technology Co., Ltd.** **1F, B2 Building, JunfengZhongchengZhizao Innovation Park, Fuhai Street, Bao'an District, Shenzhen City, China**

Date of Test:	**Jan. 16, 2019 to Feb. 21, 2019**
Date of Report:	**Feb. 22, 2019**
Report Number:	**HK1902190274E**

TEST RESULT CERTIFICATION

Applicant's name..... Motionize Israel LTD

Address ..... Sderot Yehudit 35, Tel Aviv, Israel

Manufacture's Name ..... Motionize Israel LTD

Address ..... Sderot Yehudit 35, Tel Aviv, Israel

Factory's Name..... M.A.S electronics

Address ..... Building 1, block 1, Yarka industrial park, Yarka, Israel

Product description

Trade Mark: Playermaker

Product name ..... Soccer sensor

Model and/or type reference .. AD-0300

Standards..... FCC Rules and Regulations Part 15 Subpart C Section 15.249
ANSI C63.10: 2013

Date of Test.....:

Date (s) of performance of tests .....: Jan. 16, 2019 to Feb. 21, 2019

Date of Issue .....: Feb. 22, 2019

Test Result .....: **Pass**

Testing Engineer : 

(Gary Qian)

Technical Manager : 

(Eden Hu)

Authorized Signatory : 

(Jason Zhou)

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1. TEST SUMMARY

1.1TEST PROCEDURES AND RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.249&15.209	Radiated Emission	Compliant
§15.249&15.209	Band Edges Emission	Compliant
§15.215	20dB bandwidth	Compliant
§15.207	Conducted Emission	Compliant

1.2 TEST FACILITY

Test Firm : Shenzhen HUAK Testing Technology Co., Ltd.

Address : 1-2/F,Building19,JunfengIndustrialPark,ChongqingRoad,HepingCommunity,FuhaiStreet,Bao'anDistrict,Shenzhen,Guangdong,China

Designation Number: : CN1229

Test Firm Registration Number : 616276

1.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty(9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty(30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty(Above 1GHz)	=	4.06dB, k=2

2. GENERAL INFORMATION

2.1GENERAL DESCRIPTION OF EUT

Operation Frequency	2402-2480MHz
Field Strength(3m)	93.16dBuV/m(Peak)@3m
Bluetooth Version	V4.1
Modulation	GFSK for BLE
Number of channels	40(Channel Spacing is 2MHz)
Test Channels	2402MHz, 2440MHz, 2480MHz
Hardware Version	E3
Software Version	6.6.13
Antenna Designation	Fixed antenna
Antenna Gain	0.8dBi
Power Supply	DC 3.7V by battery
Note: 1.The EUT doesn’t support BR/EDR. 2. The EUT can work while charging by USB prot but can not transrer data with PC.	

2.2 OPERATION OF EUT DURING TESTING

NO.	TEST MODE DESCRIPTION
1	Low channel TX
2	Middle channel TX
3	High channel TX
Note:1. Onlythe data of the worst case recorded in the test report. 2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.	

2.3 DESCRIPTION OF TEST SETUP

Operation of EUT during Radiation and Above1GHz Radiation testing:

2.4 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Receiver	R&S	ESCI 7	HKE-010	Dec. 27, 2018	1 Year
2.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 27, 2018	1 Year
3.	Horn Antenna	Schewarzbeck	BBHA 9170	HKE-090	Dec. 27, 2018	1 Year
4.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 27, 2018	1 Year
5.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 27, 2018	1 Year
6.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Dec. 27, 2018	1 Year
7.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 27, 2018	1 Year
8.	Horn Antenna	Schewarzbeck	9120D	HKE-013	Dec. 27, 2018	1 Year
9.	Pre-amplifier	EMCI	EMC051845 SE	HKE-015	Dec. 27, 2018	1 Year
10.	Pre-amplifier	Agilent	83051A	HKE-016	Dec. 27, 2018	1 Year
11.	EMI Test Software EZ-EMC	Tonscend	JS1120-B Version	HKE-083	Dec. 27, 2018	N/A
12.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 27, 2018	3 Year

3. RADIATED EMISSION

3.1. MEASUREMENT PROCEDURE

1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RBW 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RBW 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RBW 120KHz for QP
Start ~Stop Frequency	1GHz~26.5GHz 3MHz/10MHz for Peak, 3MHz/10Hz for Average

Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RBW 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RBW 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RBW 120KHz for QP

Test limit for Standard FCC15.249

Fundamental Frequency	**Field Strength of Fundamental (millivolts/meter)**	**Field Strength of Harmonics (microvolts/meter)**
900-928MHz	50	500
2400-2483.5MHz	50	500
5725-5875MHz	50	500
24.0-24.25GHz	250	2500

Test limit for Standard FCC 15.209

Frequency (MHz)	**Distance Meters**	**Field Strengths Limit**	
		μV/m	**dB(μV)/m**
0.009 ~ 0.490	300	2400/F(kHz)	---
0.490 ~ 1.705	30	24000/F(kHz)	---
1.705 ~ 30	30	30	---
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	Other:74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

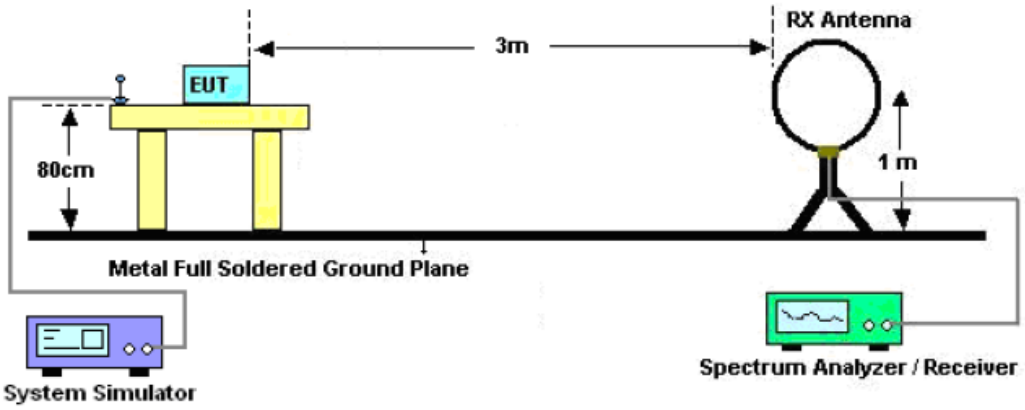
Remark: (1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

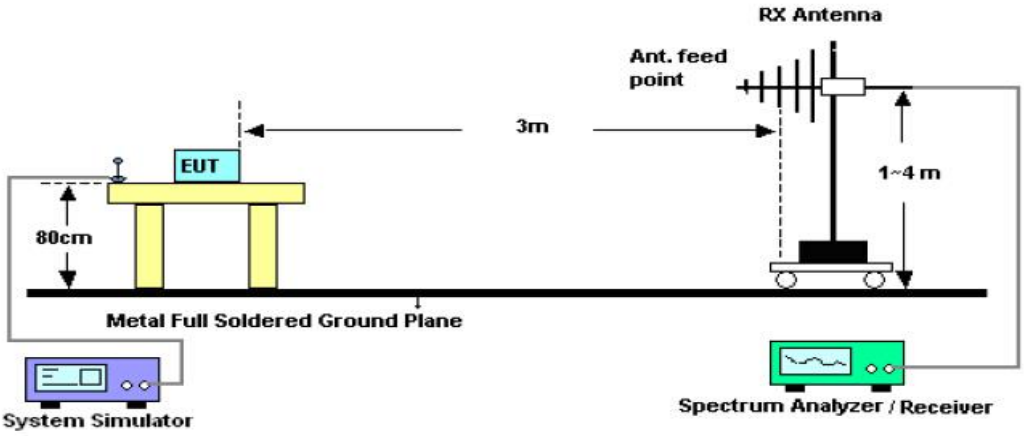
(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

3.2. TEST SETUP

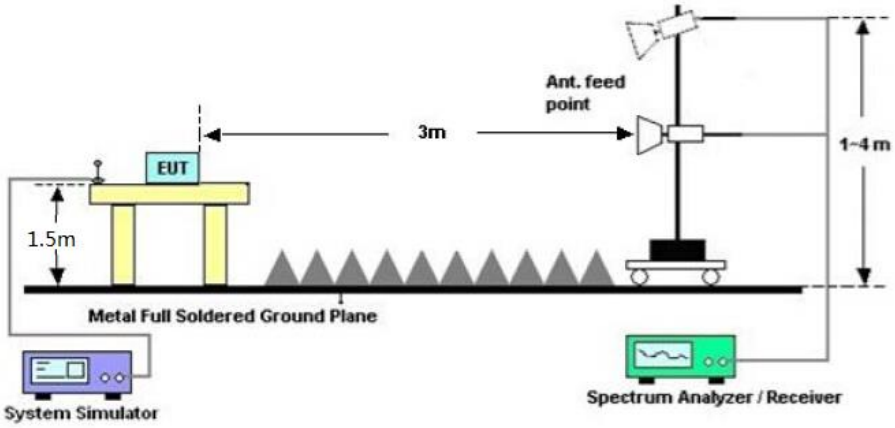
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz

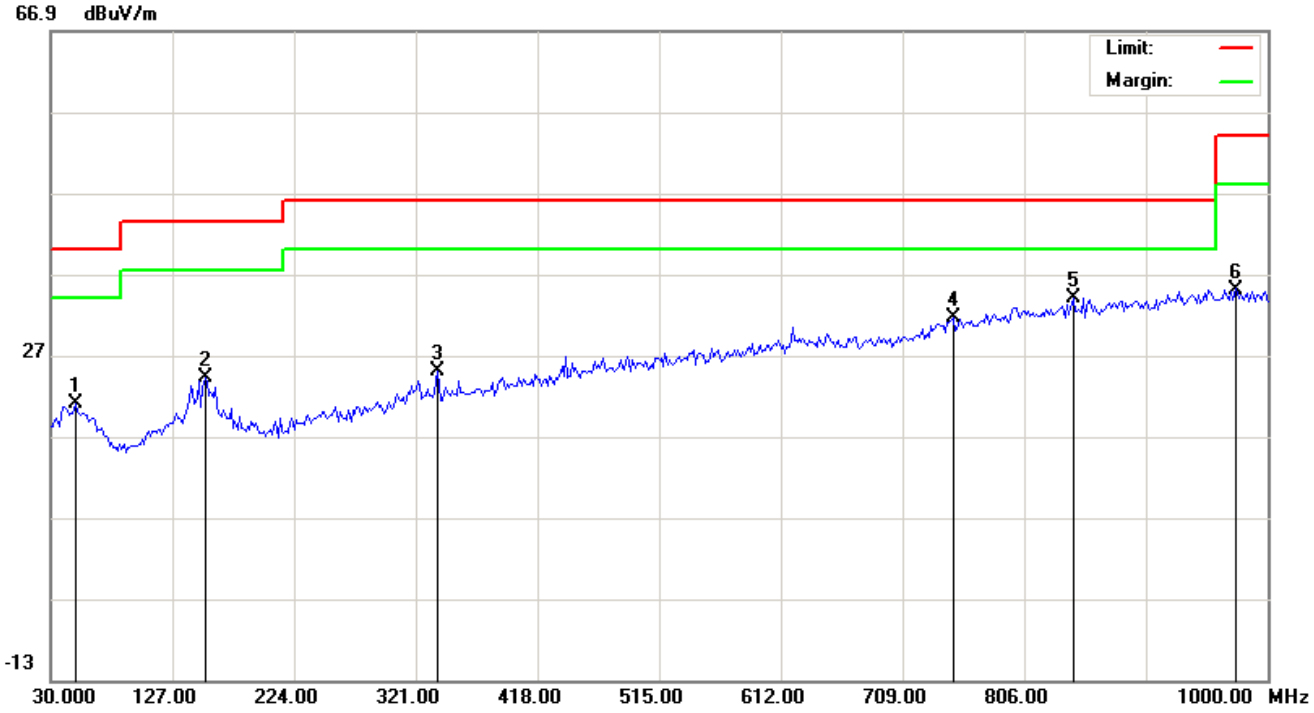


3.3. TEST RESULT

RADIATED EMISSION BELOW 30MHz

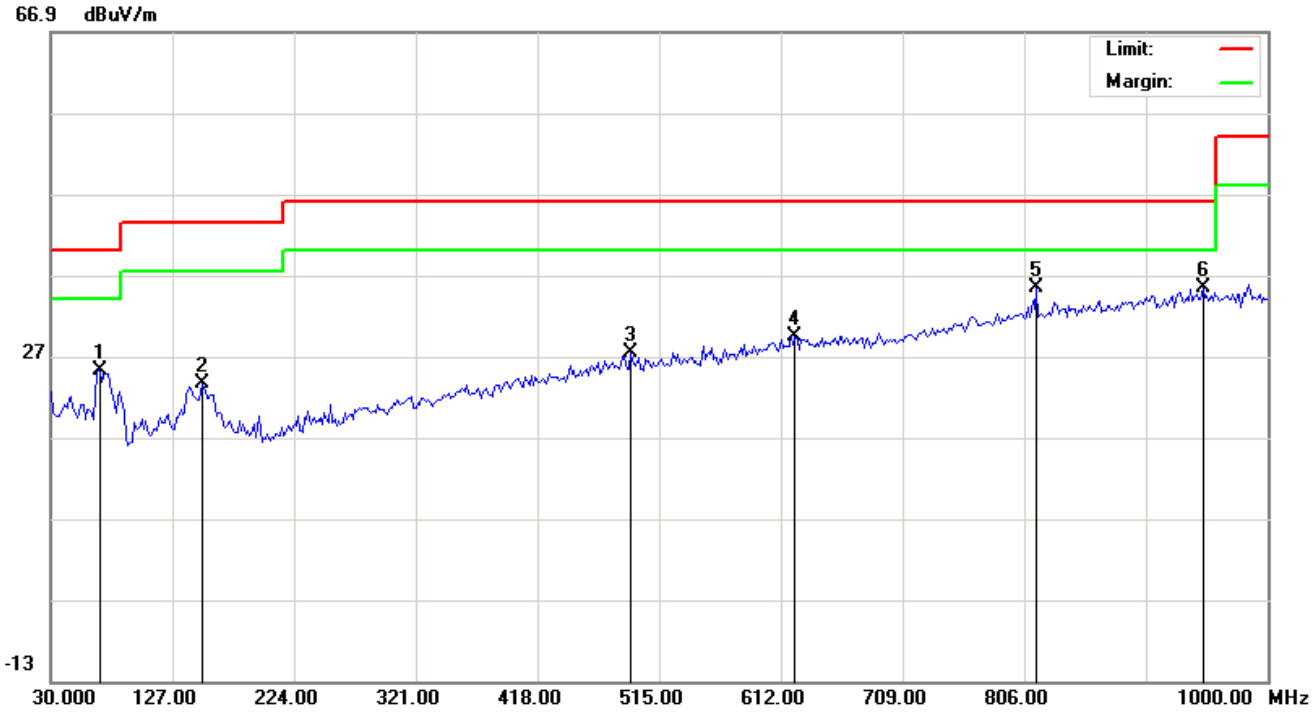
No emission found between lowest internal used/generated frequencies to 30MHz.

RADIATED EMISSION BELOW 1GHZ-Horizontal



No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		49.4000	1.18	19.75	20.93	40.00	-19.07	peak			
2		152.8667	5.03	19.20	24.23	43.50	-19.27	peak			
3		338.7833	4.26	20.83	25.09	46.00	-20.91	peak			
4		749.4167	2.25	29.27	31.52	46.00	-14.48	peak			
5	*	844.8000	2.98	30.99	33.97	46.00	-12.03	peak			
6		974.1333	2.76	32.34	35.10	54.00	-18.90	peak			

RADIATED EMISSION BELOW 1GHZ-Vertical



No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		68.8000	7.81	17.32	25.13	40.00	-14.87	peak			
2		151.2500	4.35	19.21	23.56	43.50	-19.94	peak			
3		492.3667	2.58	24.84	27.42	46.00	-18.58	peak			
4		623.3167	2.23	27.23	29.46	46.00	-16.54	peak			
5		815.7000	4.74	30.61	35.35	46.00	-10.65	peak			
6	*	948.2667	3.26	32.12	35.38	46.00	-10.62	peak			

RESULT: PASS

Note: 1. Factor=Antenna Factor+ Cable loss-Amplifier gain, Margin=Measurement-Limit.

2. The “Factor” value can be calculated automatically by software of measurement system.

3. The mode 1 is the worst case, and only the data of the worst case recorded in this test report.

RADIATED EMISSION ABOVE 1GHZ

Field strength of fundamental emission

EUT：	Soccer sensor	Model Name. ：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 1/2/3	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2402	102.77	-9.61	93.16	114	-20.84	peak
2402	95.99	-9.61	86.38	94	-7.62	AVG
2440	102.45	-9.61	92.84	114	-21.16	peak
2440	95.73	-9.61	86.12	94	-7.88	AVG
2480	101.45	-9.61	91.84	114	-22.16	peak
2480	95.46	-9.61	85.85	94	-8.15	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT：	Soccer sensor	Model Name. ：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 1/2/3	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2402	100.78	-9.61	91.17	114	-22.83	peak
2402	94.3	-9.61	84.69	94	-9.31	AVG
2440	99.88	-9.61	90.27	114	-23.73	peak
2440	94.04	-9.61	84.43	94	-9.57	AVG
2480	99.45	-9.61	89.84	114	-24.16	peak
2480	94.34	-9.61	84.73	94	-9.27	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Field strength of spurious emission

EUT：	Soccer sensor	Model Name. ：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 1	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4804	49.03	3.76	52.79	74.00	-21.21	peak
4804	44.7	3.76	48.46	54.00	-5.54	AVG
7440	43.51	8.17	51.68	74.00	-22.32	peak
7440	39.43	8.17	47.6	54.00	-6.4	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT：	Soccer sensor	Model Name. ：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 1	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4804	48.47	3.76	52.23	74.00	-21.77	peak
4804	45.11	3.76	48.87	54.00	-5.13	AVG
7440	42.54	8.17	50.71	74.00	-23.29	peak
7440	36.87	8.17	45.04	54.00	-8.96	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT：	Soccer sensor	Model Name.：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 2	Polarization：	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4880	48.58	3.78	52.36	74.00	-21.64	peak
4880	44.98	3.78	48.76	54.00	-5.24	AVG
7320	43.37	8.23	51.6	74.00	-22.4	peak
7320	39.74	8.23	47.97	54.00	-6.03	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT：	Soccer sensor	Model Name. ：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 2	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4880	46.99	3.78	50.77	74.00	-23.23	peak
4880	42.35	3.78	46.13	54.00	-7.87	AVG
7320	43.37	8.23	51.6	74.00	-22.4	peak
7320	38.45	8.23	46.68	54.00	-7.32	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT：	Soccer sensor	Model Name.：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 3	Polarization：	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4960	47.96	3.81	51.77	74.00	-22.23	peak
4960	44.79	3.81	48.6	54.00	-5.4	AVG
7440	42.5	8.27	50.77	74.00	-23.23	peak
7440	38.44	8.27	46.71	54.00	-7.29	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT：	Soccer sensor	Model Name. ：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 3	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4948.062	47.79	3.81	51.6	74.00	-22.4	peak
4948.062	43.66	3.81	47.47	54.00	-6.53	AVG
7422.093	42.3	8.27	50.57	74.00	-23.43	peak
7422.093	38.8	8.27	47.07	54.00	-6.93	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Note: Other emissions from 8G to 25 GHz are considered as ambient noise. No recording in the test report.
Factor=Antenna Factor+ Cable loss-Amplifier gain, Margin=Measurement-Limit.

The “Factor” valuecan be calculated automatically by software of measurement system.

4. BAND EDGE EMISSION

4.1. MEASUREMENT PROCEDURE

1. The EUT operates at transmitting mode. The operate channel is tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.

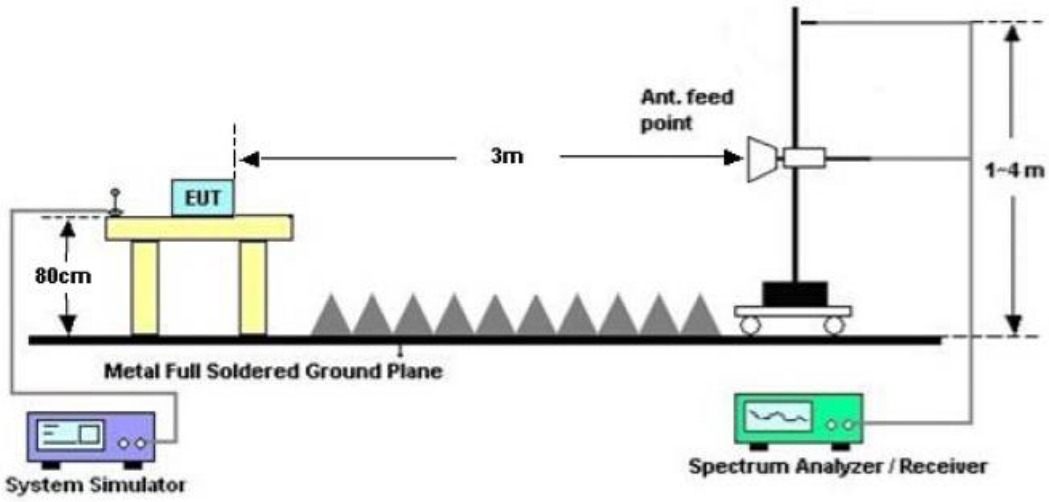
2. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission: (a) PEAK: RBW=1MHz, VBW=3MHz , Sweep=AUTO

(b) AVERAGE: RBW=1MHz ; VBW=1/on time(1kHz), Sweep=AUTO

3. Other procedures refer to clause 3.1.

4.2 TEST SETUP

RADIATED EMISSION TEST SETUP



4.3RADIATED TEST RESULT

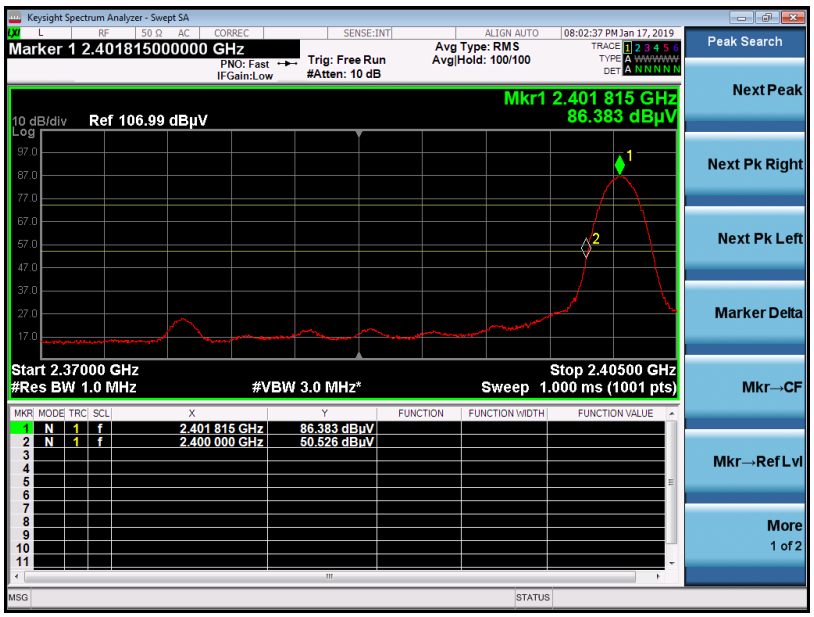
Note:

1. Factor=Antenna Factor+ Cable loss-Amplifier gain. Field Strength=Factor + Reading level
2. The factor had been edited in the “Input Correction” of the Spectrum Analyzer. So the Amplitude of test plots is equal to Reading level plus the Factor in dB. Use the AdB(μV) to represent the Amplitude. Use the FdB(μV/m) to represent the Field Strength. So A=F.

EUT：	Soccer sensor	Model Name. ：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 1	Polarization：	Horizontal

PK Value

AV Value



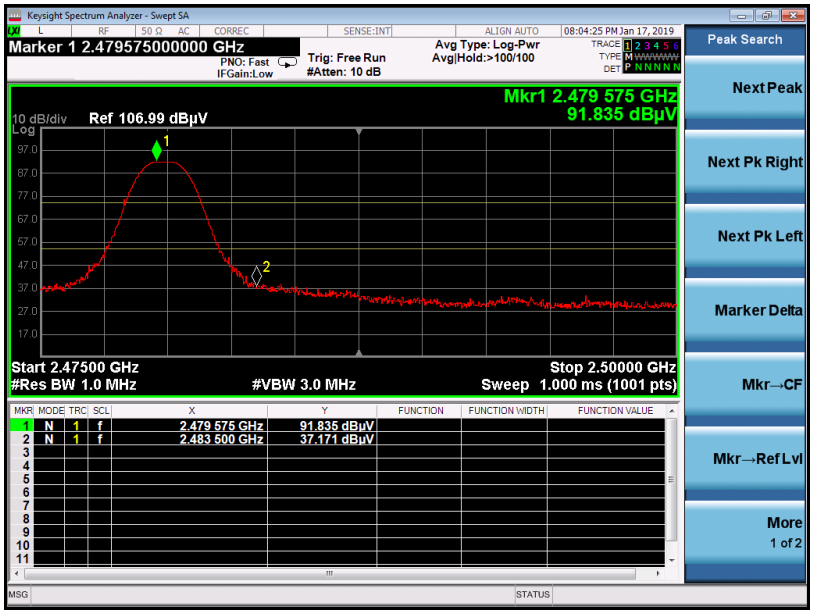
EUT：	Soccer sensor	Model Name. ：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 1	Polarization：	Vertical

PK Value

AV Value

EUT：	Soccer sensor	Model Name. ：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 3	Polarization：	Horizontal

PK Value

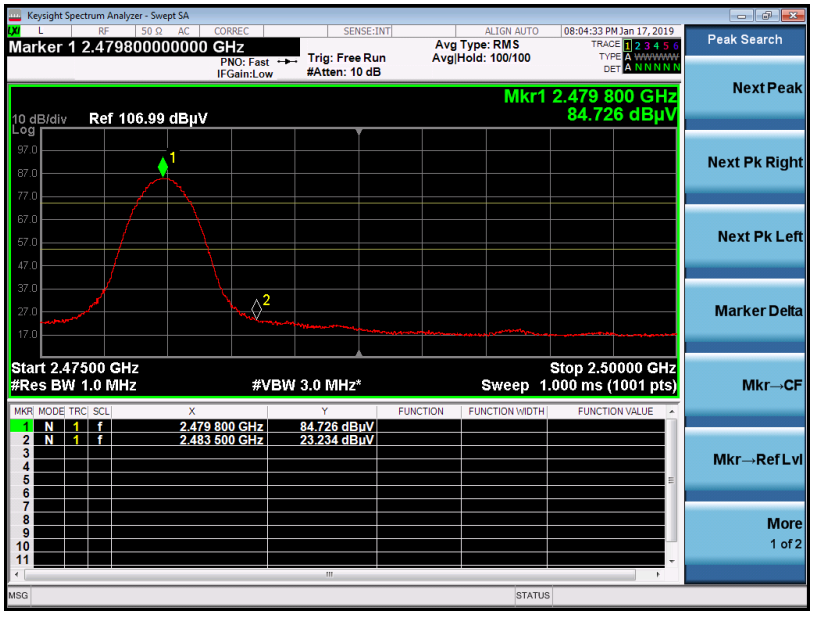


AV Value

EUT：	Soccer sensor	Model Name. ：	AD-0300
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 3.7V
Test Mode ：	Mode 3	Polarization：	Vertical

PK Value

AV Value

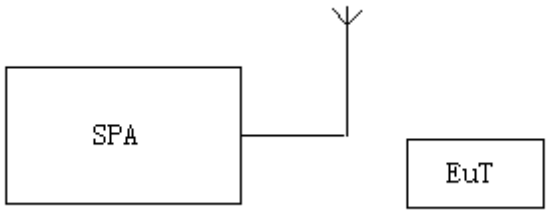


5. BANDWIDTH

5.1. MEASUREMENT PROCEDURE

1. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2, Set the EUT Work on the operation frequency individually.
3. Set Span = approximately 2 to 5 times the OBW, centered on a hoping channel
   The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately 3* RBW; Sweep = auto; Detector function = peak
4. Set SPA Trace 1 Max hold, then View.

5.2. TEST SETUP

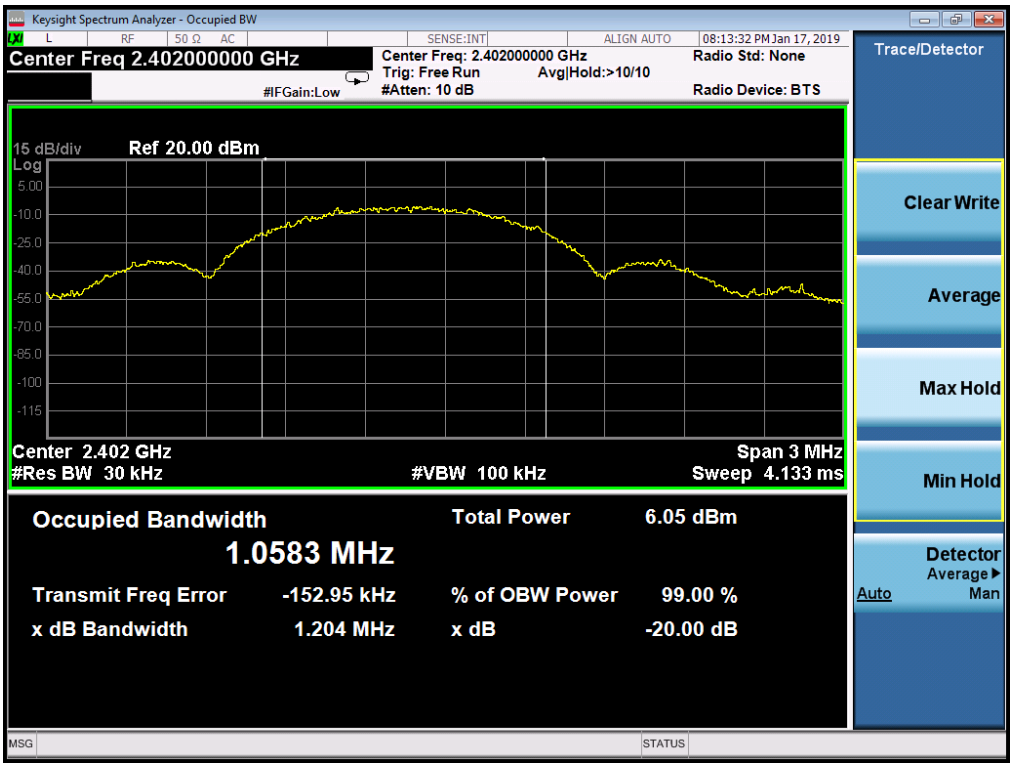


5.3. TEST RESULT

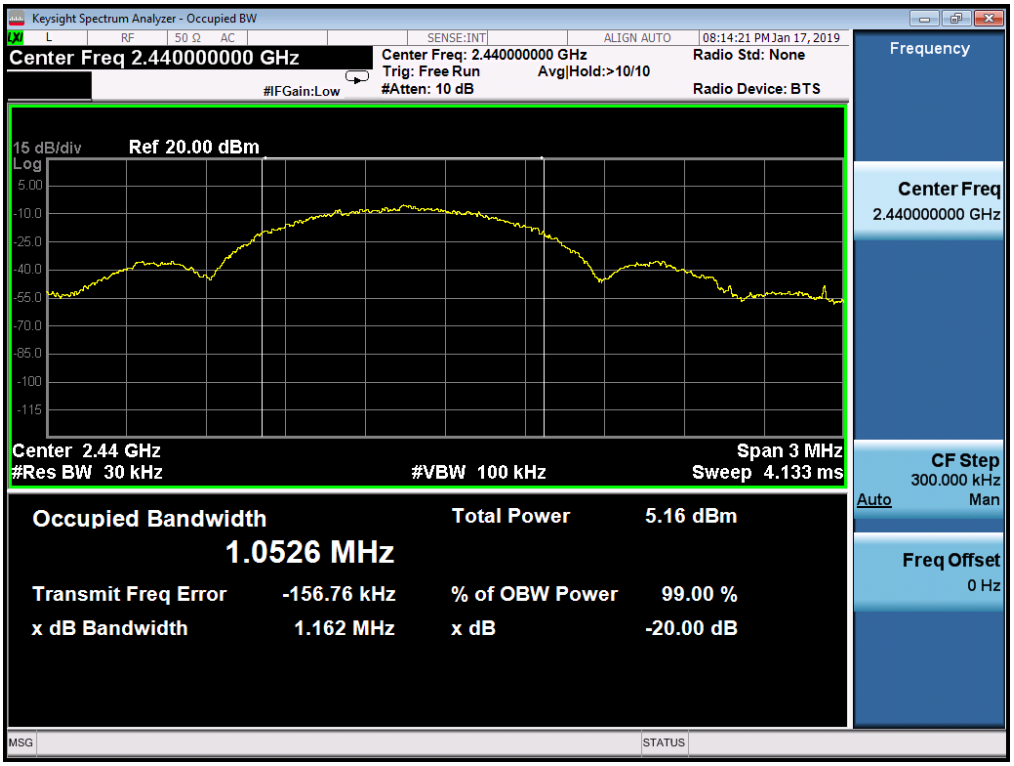
TEST ITEM	-20dB BANDWIDTH
TEST MODE	Mode1, Mode 2, Mode 3

Channel	MHz	Criteria
Low Channel	1.204	PASS
Middle Channel	1.162	PASS
High Channel	1.210	PASS

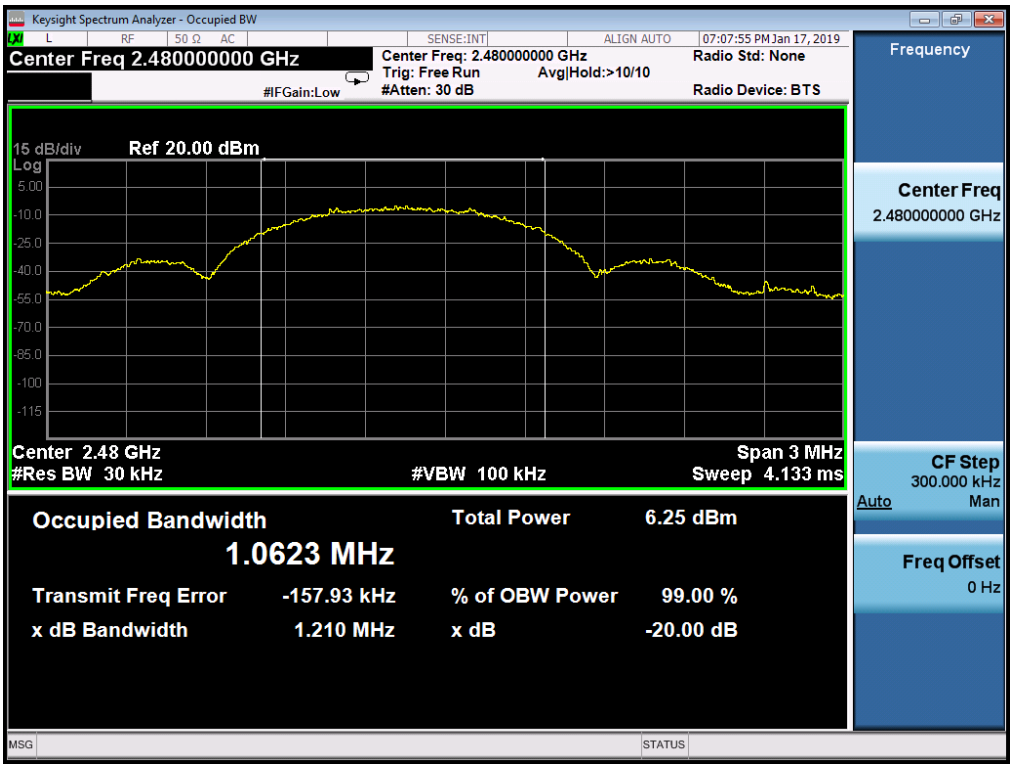
TEST PLOT OF BANDWIDTHFOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



6. LINE CONDUCTED EMISSION TEST

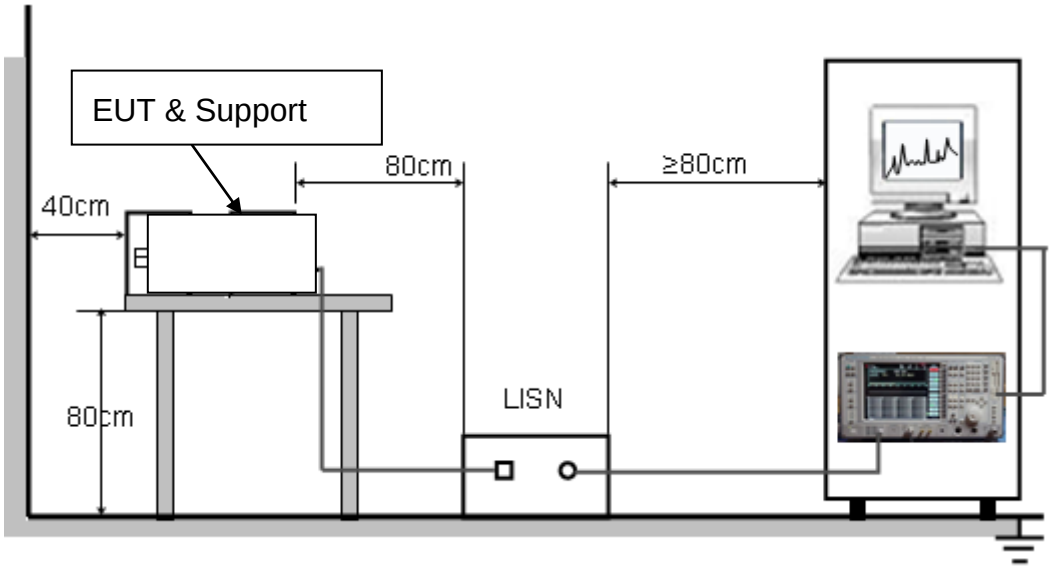
6.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

6.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



6.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipments received AC120V/60Hz power from a LISN, if any.
5. The EUT received DC charging voltage by adapter or PC which received 120V/60Hzpower by a LISN.
6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.

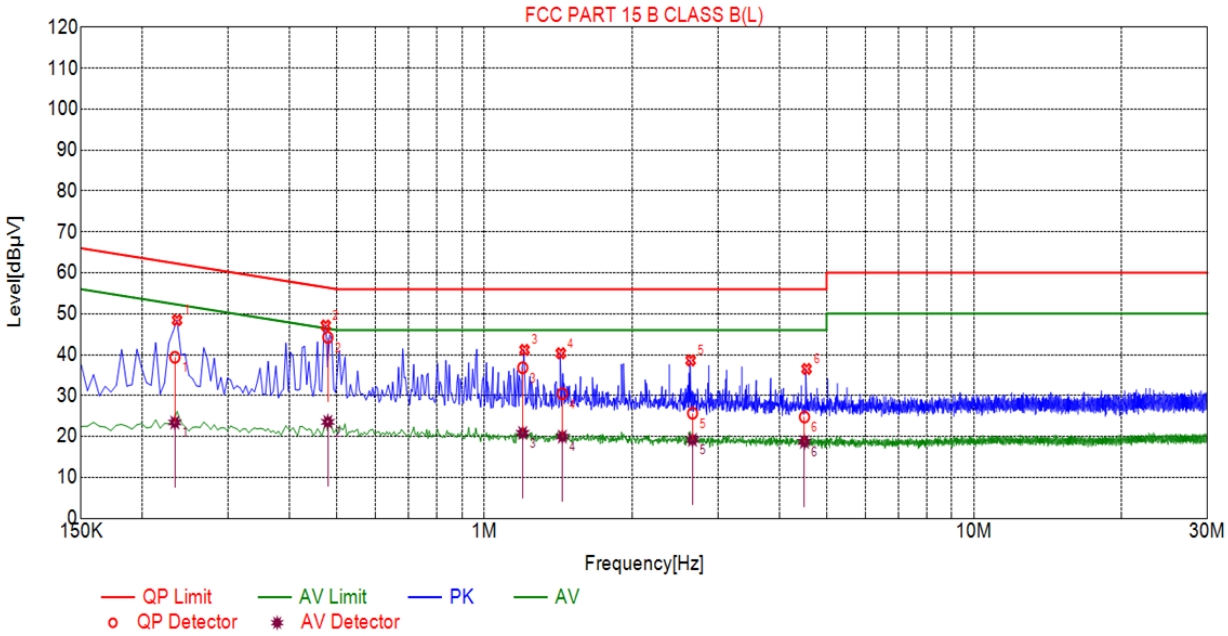
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

6.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
3. The test data of the worst case condition(s) was reported on the Summary Data page.

6.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

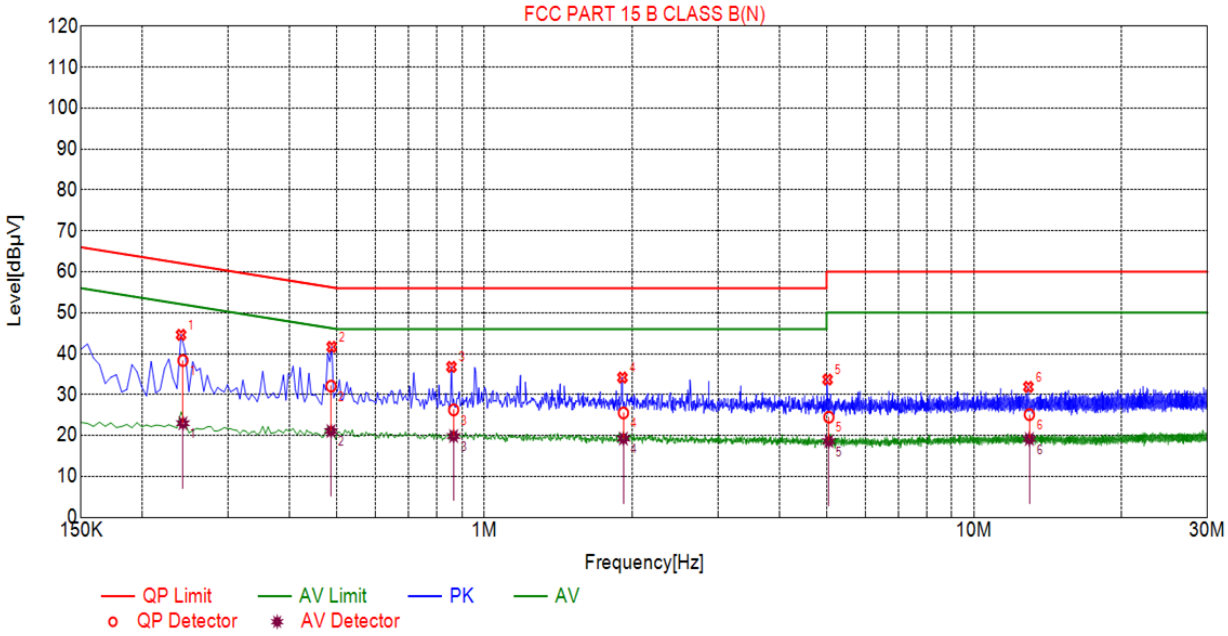
Line Conducted Emission Test Line 1-L



Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]
1	0.2331	10.03	39.36	62.34	22.98	23.43	52.34	28.91
2	0.4787	10.04	44.23	56.36	12.13	23.58	46.36	22.78
3	1.1972	10.09	36.81	56.00	19.19	20.88	46.00	25.12
4	1.4427	10.10	30.46	56.00	25.54	19.98	46.00	26.02
5	2.6613	10.21	25.68	56.00	30.32	19.19	46.00	26.81
6	4.5056	10.25	24.77	56.00	31.23	18.70	46.00	27.30

Line Conducted Emission Test Line 2-N



Final Data List

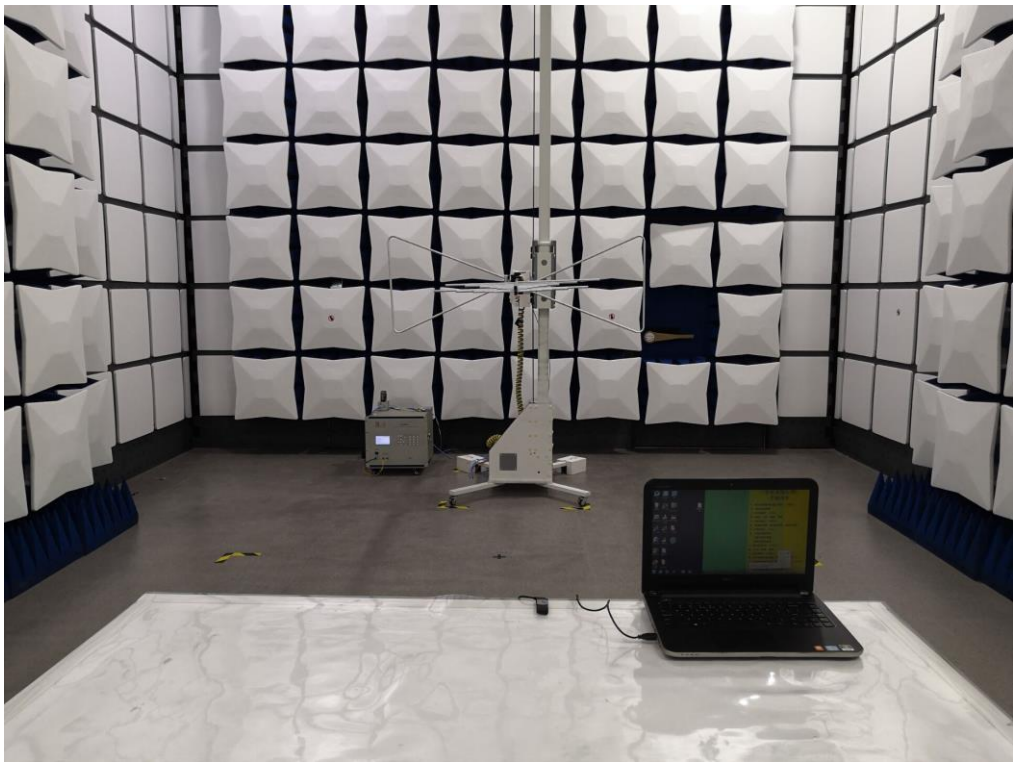
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]
1	0.2421	10.03	38.32	62.02	23.70	22.99	52.02	29.03
2	0.4860	10.04	32.07	56.24	24.17	21.09	46.24	25.15
3	0.8651	10.06	26.27	56.00	29.73	19.87	46.00	26.13
4	1.9228	10.14	25.52	56.00	30.48	19.25	46.00	26.75
5	5.0533	10.26	24.48	60.00	35.52	18.62	50.00	31.38
6	12.9805	9.97	25.10	60.00	34.90	19.15	50.00	30.85

RESULT: PASS

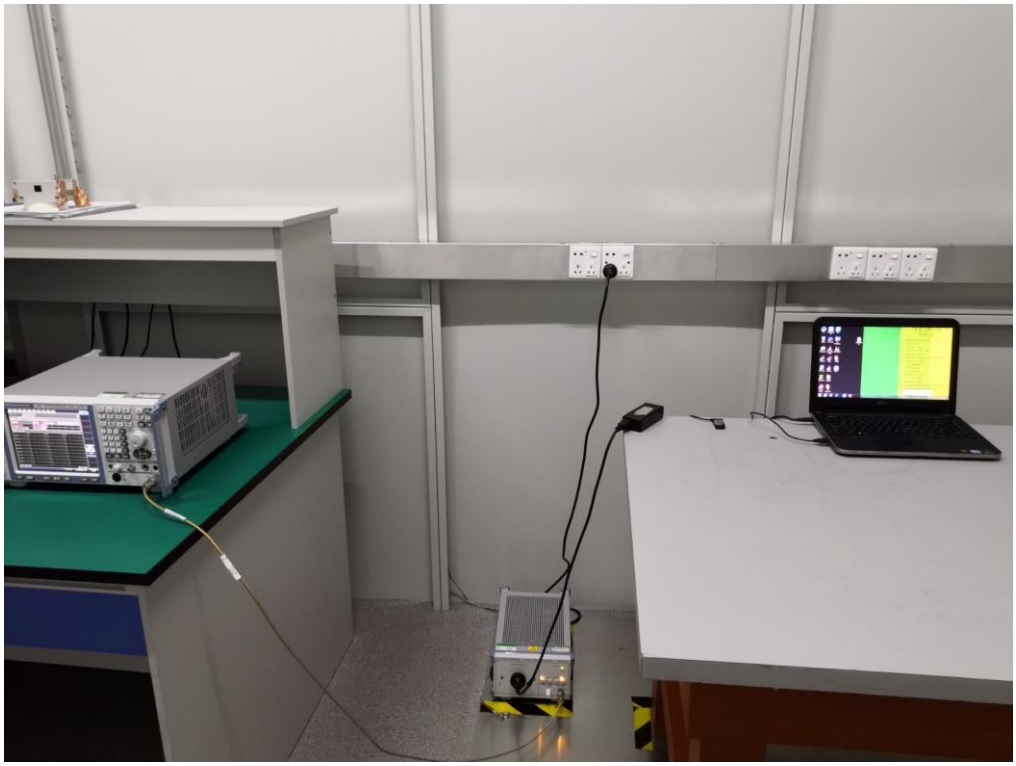
Note: All the test modes had been tested, the mode 1 was the worst case. Only the data of the worst case would be record in this test report.

7. PHOTOGRAPH OF TEST

Radiated Emission

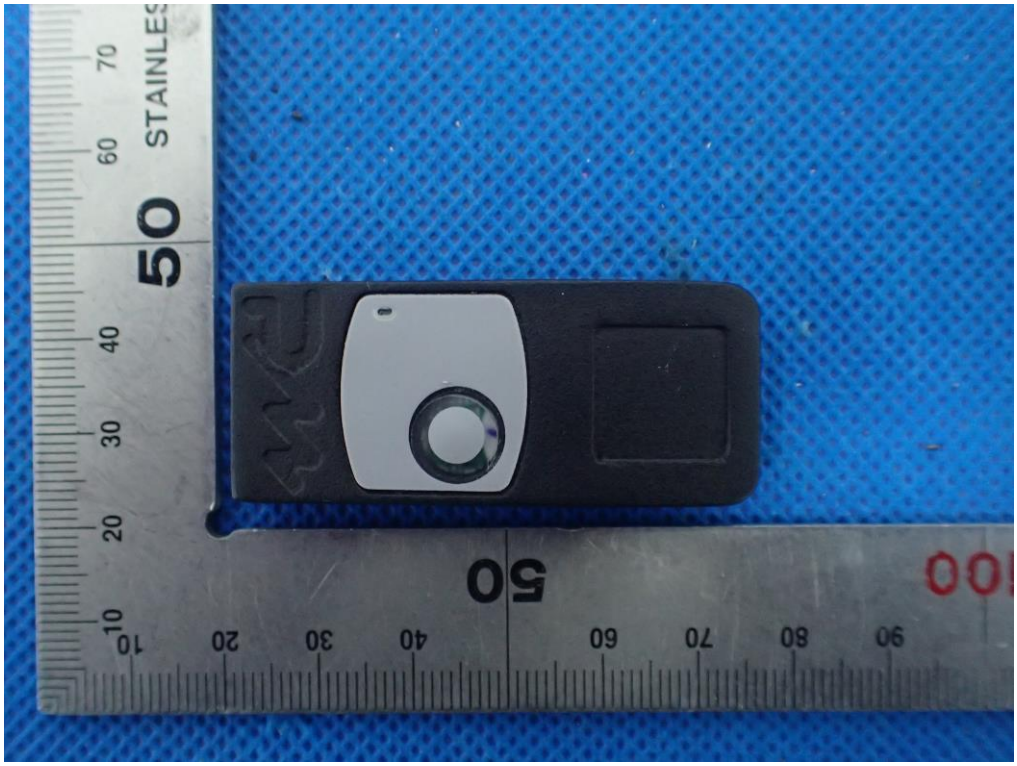


Line Conducted Emission

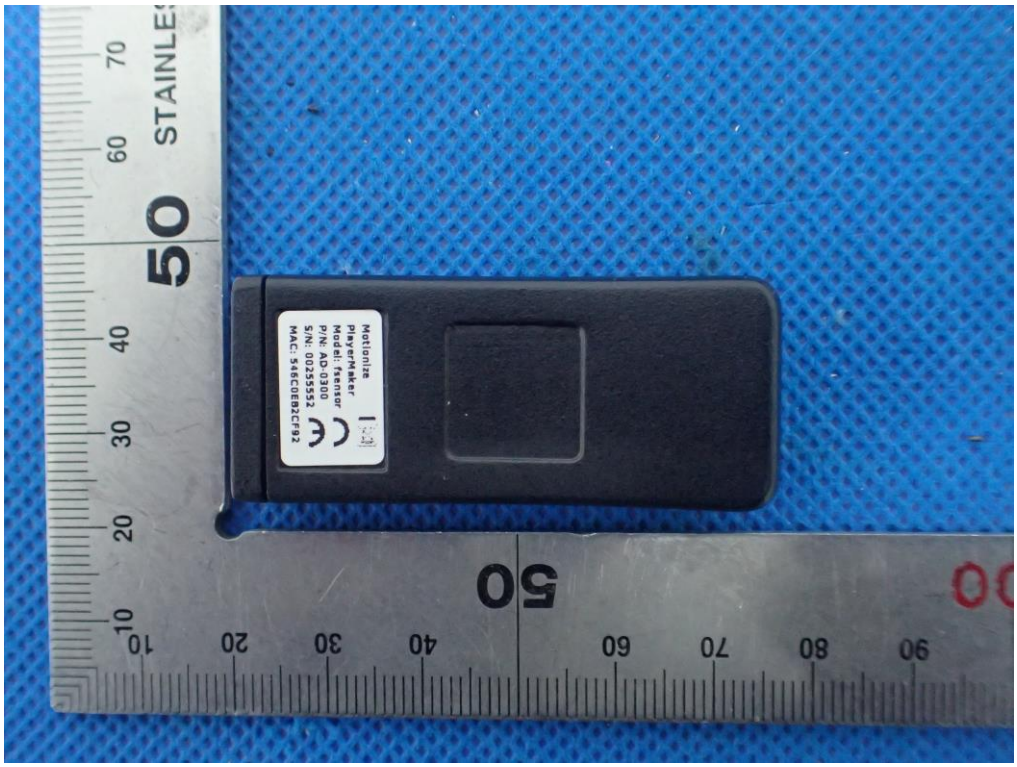


8. PHOTOGRAPH OF EUT

TOP VIEW OF EUT

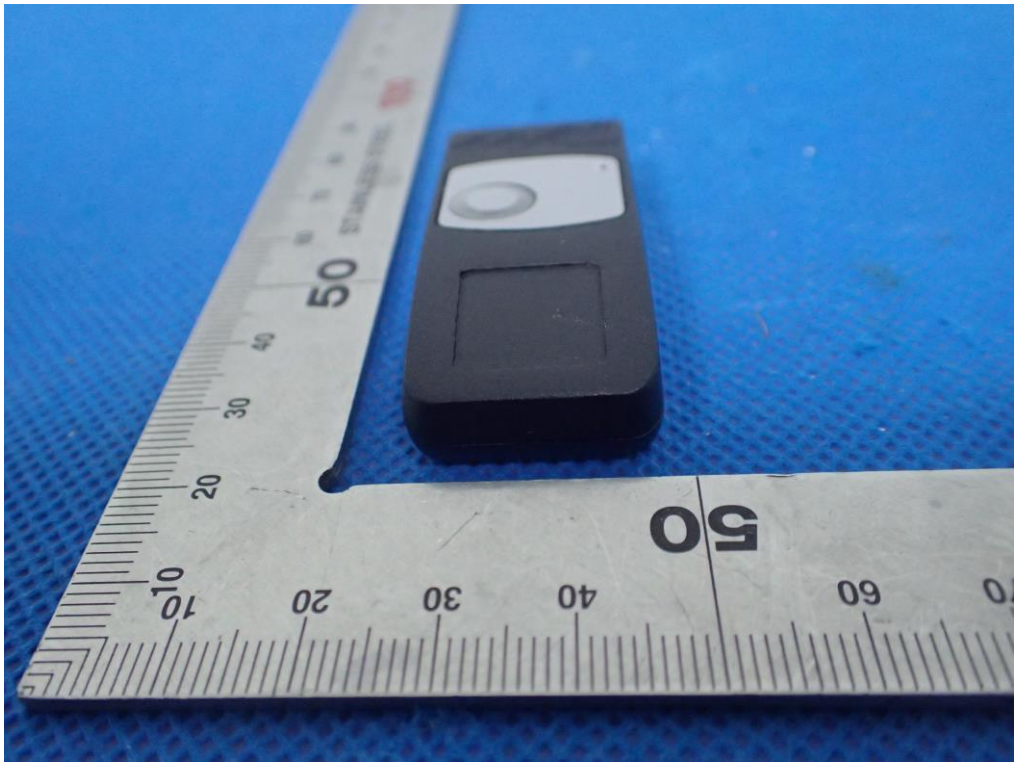


BOTTOM VIEW OF EUT

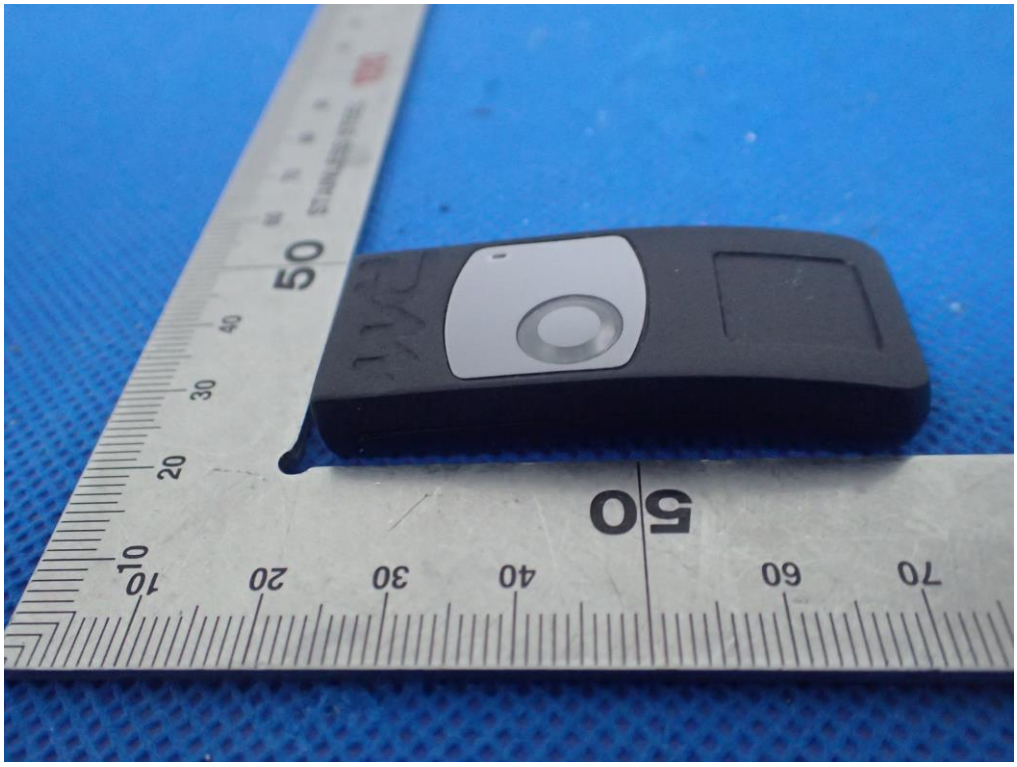


FRONT VIEW OF EUT

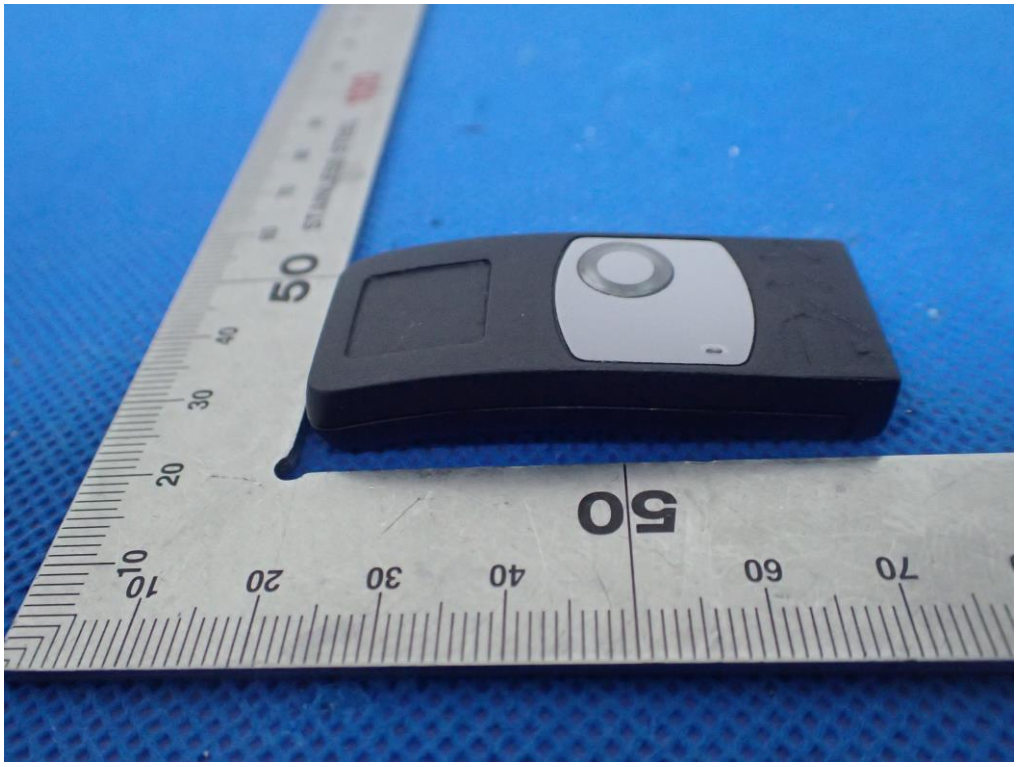
BACK VIEW OF EUT



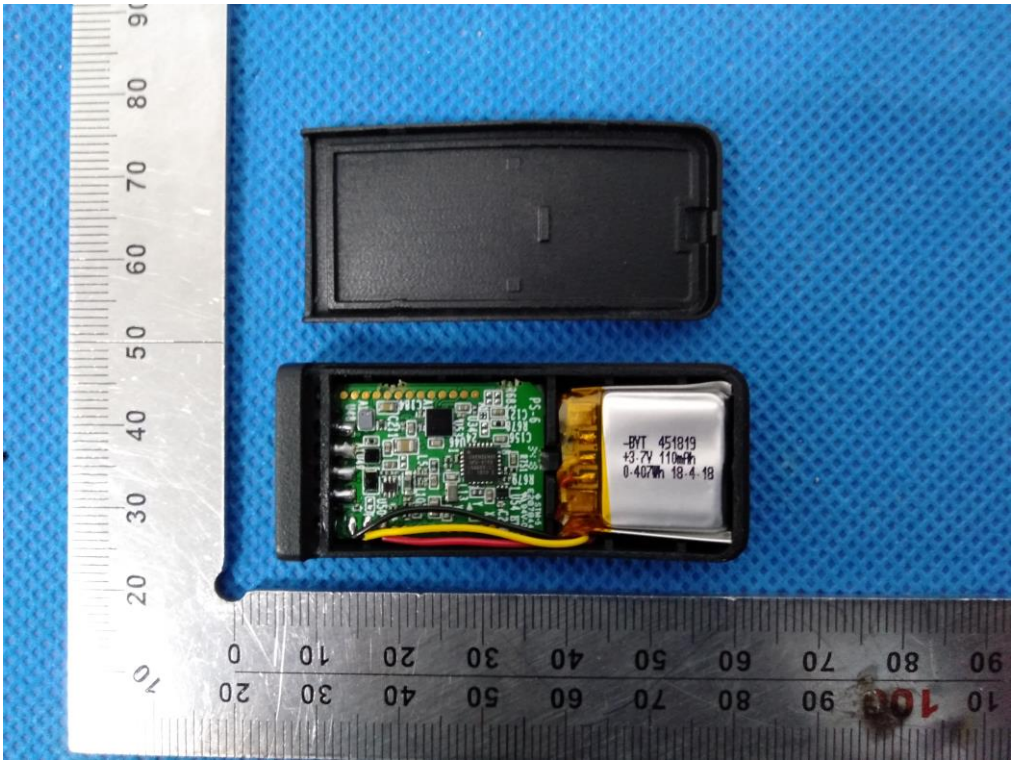
LEFT VIEW OF EUT



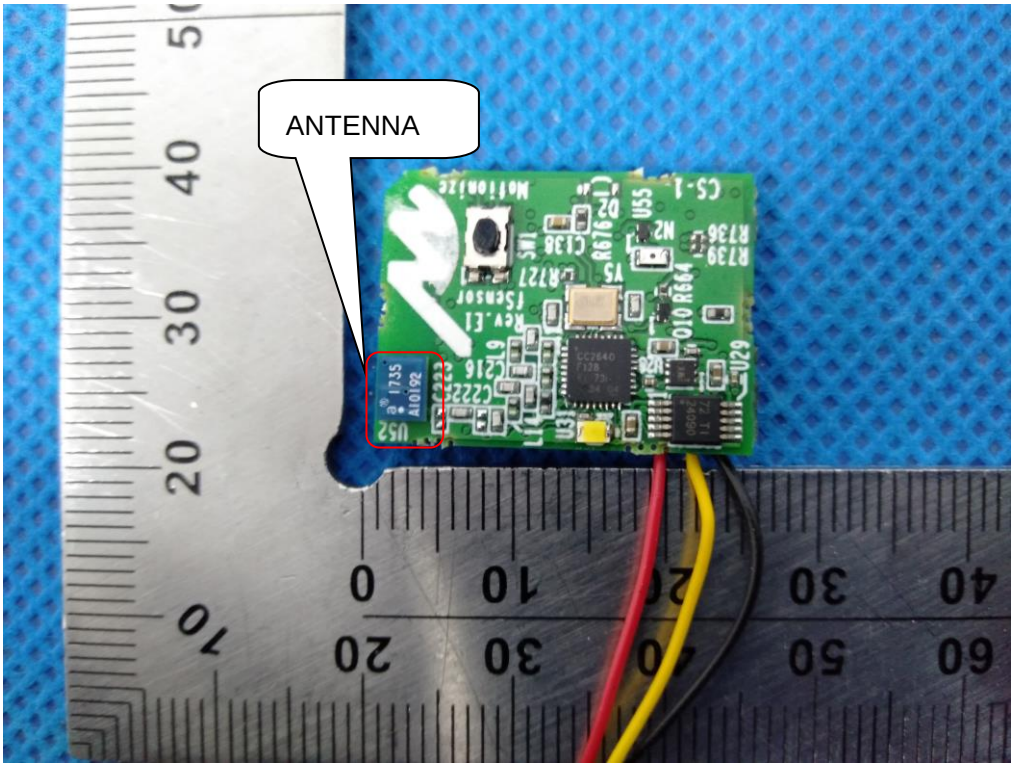
RIGHT VIEW OF EUT



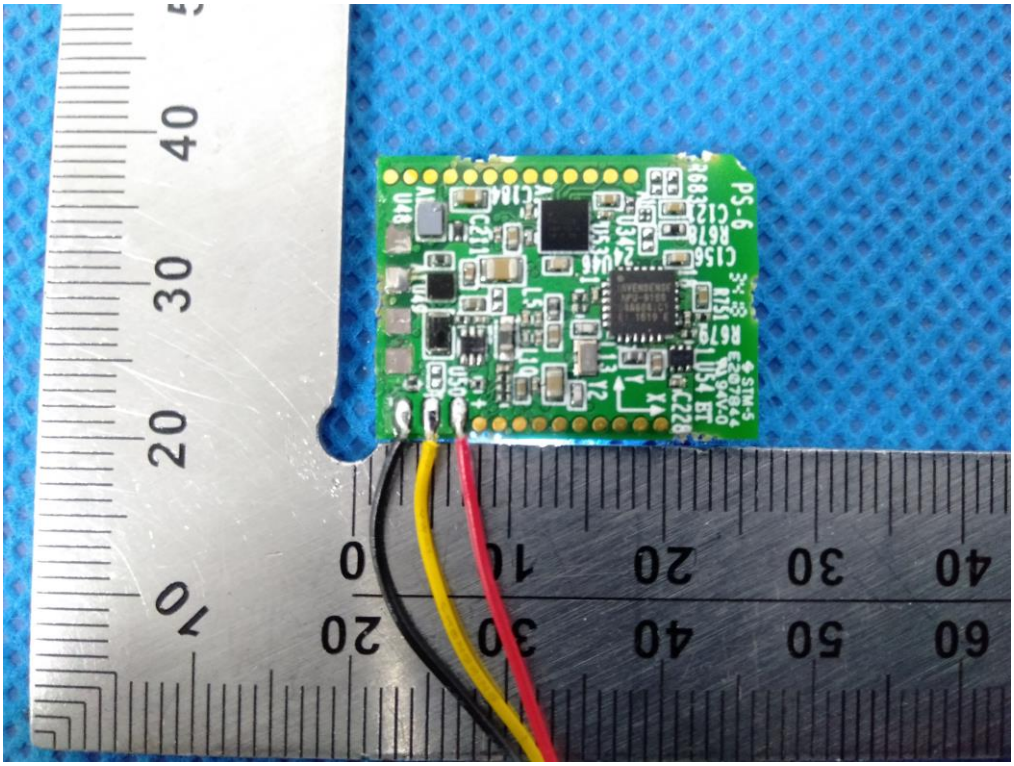
OPEN VIEW- OF EUT



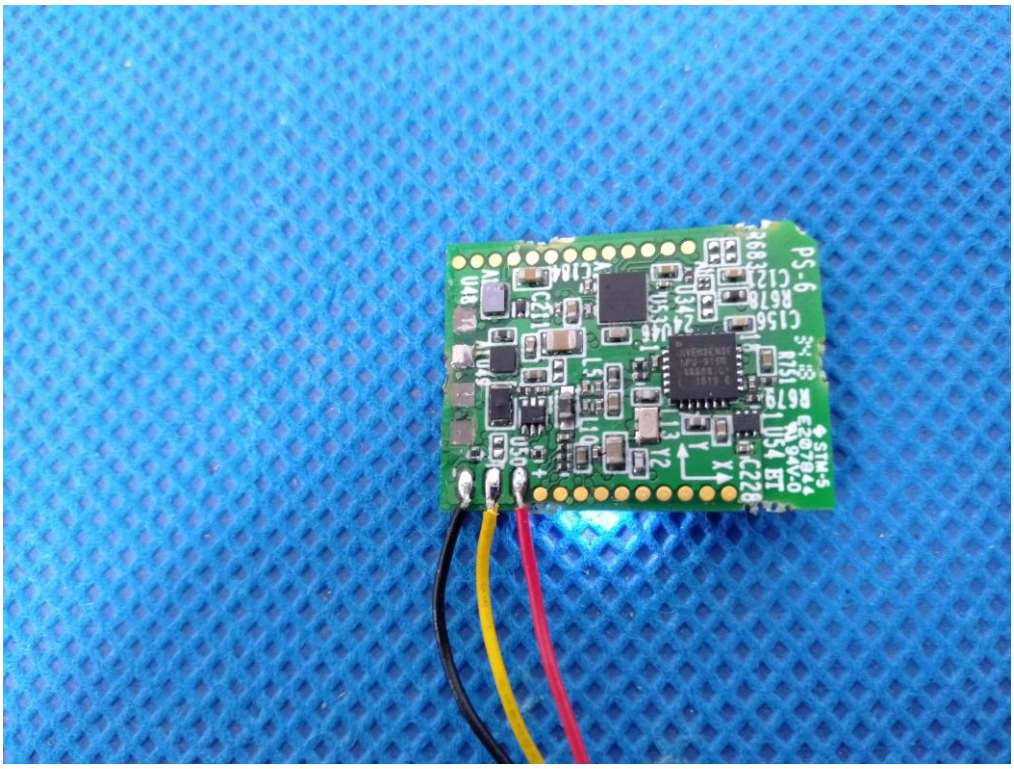
INTERNAL VIEW-1 OF EUT



INTERNAL VIEW-2 OF EUT



INTERNAL VIEW-3 OF EUT



----END OF REPORT----